

NEWS AND
RESOURCES FOR
TEACHERS OF
ENGINEERING &
TECHNOLOGY
EDUCATION

Special points of
interest:

- Podcast Updates
- Upcoming Events
- Resources
- Help Wanted



Indiana Tech Flash

Indiana's Most Comprehensive
Newsletter & Resource for Engineering &
Technology Education.



March 2009

Indiana Department of Education Video Podcasts and Updates



Indiana Superintendent
of Public Instruction
shares updates through
video podcasts!

Topics include efforts to
realign DOE to better meet
the needs of schools, recent
actions of the State Board of
Education, a legislative
update, and information about
the federal stimulus package.

[http://media.doe.in.gov/
bennett/2009-02-27-
Podcast.html](http://media.doe.in.gov/bennett/2009-02-27-Podcast.html)

Features inside this
issue include:

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Upcoming Events

- March 19, **ATAIN Conference on Aerospace** - Taylor University
- March 19-21, **Boilermaker FIRST Robotics Regional** - Lafayette
- March 20, Educator Program: **The FIRST Experience** – Lafayette
- March 26-28, 2009 - **ITEA Conference** - Louisville, Kentucky
- March 28, 2009 - **ASEE Regional Conference** - Valparaiso University
- April 27, 2009 – **IMSTEA Super Mileage Challenge** - O'Reilly IRP
- May 2-3, 2009 - **FREE Pro/ENGINEER 3D CAD Workshop** - Central 9 CC
- June 22 - 23, 2009 - **FREE Pro/ENGINEER 3D CAD Workshop** – North Harrison Middle School



Keeping Up With Data Rot

Computer formats come and go leaving some users with data no longer compatible with software or hardware. As David Pogue reports, this is called data rot.

<http://www.cbsnews.com/video/watch/?id=4836762n>



READY TO USE ACTIVITIES

The Children's Engineering website focuses on providing resources to support you in teaching about design, Engineering and Technology Education for the Elementary Classroom & More!

<http://www.childrensengineering.com>

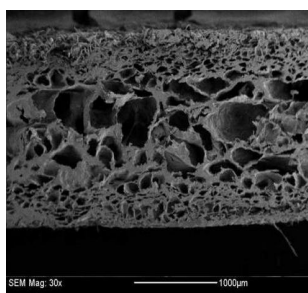
The Biotechnology Learning Hub

Biotechnology Learning Hub
Bringing Biotechnology and Education together in New Zealand

The Biotechnology Learning Hub

will be adding more teaching resources to the Potato plate story during 2009. You can register to receive updates on the Biotechnology Learning Hub at

www.biotechlearn.org.nz/user/register



You can also contact Biotechnology Learning Hub at enquiries@biotechlearn.org.nz with comments or feedback.

<http://www.biotechlearn.org.nz/>

BEST EVIDENCE ENCYCLOPEDIA



BEST EVIDENCE ENCYCLOPEDIA

Educators looking for useful, educator-friendly reviews of the evidence supporting math, reading, and other programs – including textbooks, technology, and professional development

approaches – can find effectiveness ratings on the Best Evidence Encyclopedia. The Web site synthesizes the results of hundreds of studies by numerous researchers to rate the effectiveness of educational programs and practices. Recently

published on the site is a review of beginning reading programs.

<http://www.bestevidence.org/>

The Solar Cooker Archive



The Solar Cooker Archive

Solar cooking is the simplest, safest, most convenient way to cook food without consuming fuels or heating up the kitchen. Many people choose to solar cook for these reasons. But for hundreds of millions of

people around the world who cook over fires fueled by wood or dung, and who walk for miles to collect wood or spend much of their meager incomes on fuel, solar cooking is more than a choice — it is a blessing.

For millions of people who lack access to safe drinking water and become sick or die.

<http://solarcooking.org/>

CamStudio Free Streaming Video Software



CamStudio™

OPEN SOURCE

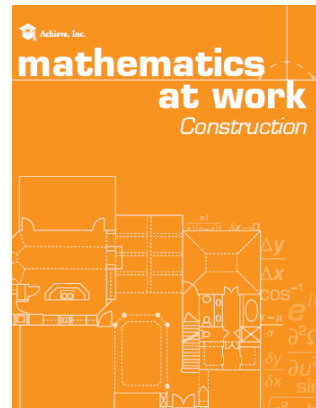
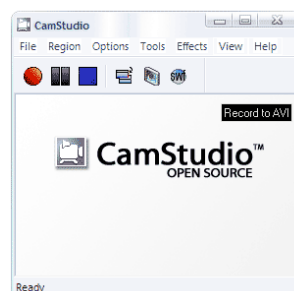
<http://camstudio.org/>

Free Streaming Video Software

CamStudio

Free Streaming Video Software is able to record all screen and audio activity on your computer and create industry-standard AVI video files

and using its built-in SWF Producer can turn those AVIs into lean, mean, bandwidth-friendly Streaming Flash videos (SWFs)



Math Works Toolkit from Achieve

provides resources for policymakers and educational stakeholders that make the case that rigorous math course taking improve workplace and career readiness.

<http://www.achieve.org/MathWorks>



Animated Engines

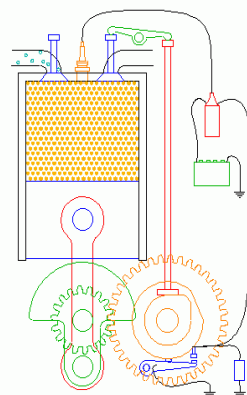
Animated Engines

provides you with animated illustrations that show the inner workings of a variety of engines. This web site began life as an experiment in web publishing, but has grown more and more focused on animated engines.

Animated Engines features the inner workings of:

- Internal combustion engines
- Steam engines
- Stirling engines
- And much more!

<http://www.keveney.com/Engines.html>

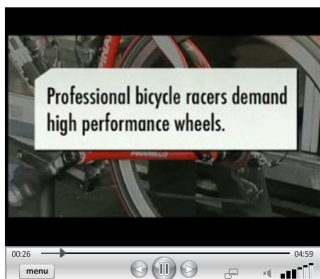


Copyright 2000, Keveney.com

Building & Testing Wheels

Building & Testing Wheels

Movie Title: **Building and Testing Wheels**



Want your students to

remember math or science class the next time they ride a bike? Give them an inside look at what it takes to build and test durable, high-performance bike wheels.

In the assembly room, spokes are plucked like guitar strings to ensure equal tension and a balanced load. In a test

room, a custom machine is subjecting a wheel to 4.4 million bumps!

http://www.thefutureschannel.com/dockets/realworld/building_testing_bike_wheels/

What Can I Build On?

The ability of buildings to withstand earthquakes is dependent on maintaining structural integrity on the substrate in which the building is constructed. This lesson will challenge students to design and test building design modifications capable of withstanding liquefaction.

<http://www.ciese.org/curriculum/musicalplates3/en/teacherenrichment4.shtm>



**International Technology
Education Association**

1914 Association Drive
Suite 201
Reston, VA 20191-1539
Phone (703) 860-2100
Fax (703) 860-0353

Proclamation: ITEA's Position on the "T & E" of STEM

Whereas; Science, Technology, Engineering, and Mathematical (STEM) literacy is critical for the advancement of students to enter all careers of tomorrow, be it known that the (ITEA) International Technology Education Association believes that it is necessary for K-12 students to gain 21st Century knowledge, skills, and thinking abilities for the technological world.

ITEA's Board of Directors, on behalf of its membership proclaims that the delivery of STEM education content is closely aligned with the same core content as *Standards for Technological Literacy*. Furthermore, the goals of our content are essential for all students to achieve both academic and technological abilities in all career pathways and for future leadership in Technology, Innovation, Design and Engineering.

Further, that the content contained within our standards is the foundation for students to develop 21st Century STEM literacy—the very core of abilities needed for students to become advanced problem solvers, innovators, technologists, engineers, and knowledgeable citizens. ITEA believes that all true STEM programs must include *Standards for Technological Literacy* as a ladder to help students achieve STEM literacy.

Therefore, it is proclaimed that the Technology and Engineering within STEM is delivered by our content area. ITEA and its *Standards for Technological Literacy* continue to be supported by NASA, The National Academies of Science and Engineering, the National Science Foundation, and the National Assessment for Educational Progress. ITEA believes our content and standards are the foundation through which students may achieve STEM literacy with the partnership of science and mathematics to help all students achieve 21st Century skills.

Approved by the ITEA Board of Directors on January 17, 2009



2009 PreRegistration Form

Page 1 of 2

ITEA Membership must be current through **March 31, 2009** in order to qualify for member rates.

Your conference confirmation will be sent to the email address given below. Please fill out all information completely and accurately.

Step 1: Personal Information

- ☐ ITEA Member* ITEA Member # _____
☐ New Member ☐ First-Time Attendee

Name _____

School/Business Name (for badge) _____

Mailing Address ☐ Check if address is for school/business
*Students please use home address.

City _____ State/Province _____

Zip/Postal Code _____ Country _____

Work Phone _____ Fax _____

Email (Confirmation/receipt will be sent to this email address.) _____

Your first name as you would like it to appear on your badge _____

Spouse's name for badge (if purchasing a spouse registration) _____

Step 2: Demographics (required)

General Profile

- ☐ Elementary
☐ Middle/Junior High
☐ High School
☐ Supervisor/Administrator
☐ Junior/Community College
☐ University Professor
☐ University Student
☐ Retired
☐ Non Teaching

Gender

- ☐ Male
☐ Female

Age Range

- ☐ 18-25
☐ 26-35
☐ 36-45
☐ 46-55
☐ Over 55

Preregistration forms
MUST be received by ITEA
on or before **2/27/09**.

After 2/27/09

attendees must register in Louisville,
where on-site registration forms will be
provided.

Step 3: Registration Options and Rates

(A) Conference Registration	Before 02/27/09	On-Site	
Professional/Life/Advocate Member	\$279	\$319	\$ _____
Nonmember/Professional	\$359	\$399	\$ _____
Full-Time Student Member	\$ 69	\$ 79	\$ _____
Spouse (nonteaching, nonstudent only)	\$ 69	\$ 69	\$ _____
☐ Spouse Program at the Marriott 3/26/09 (included in Spouse Reg. – please check box if attending)			
One-Day Pass (Available for sale on-site only – Members \$160; Nonmembers \$200)			

(B) CS Conference Package	Before 02/27/09	On-Site	
Council for Supervisors / ITEA Member	\$349	\$389	\$ _____
(Package includes ITEA Conference Registration, all CS sessions, CS Breakfast, and Awards Luncheon.)			

(C) PATT Conference Package	Before 02/27/09	On-Site	
ITEA International Member	\$329	\$369	\$ _____
International Nonmember	\$409	\$449	\$ _____
(Package includes ITEA Conference Registration, International Lunch, PATT-21 Reception, and Electronic Proceedings.)			

If you are unsure about attending a ticketed function, please wait to purchase the ticket(s) on-site.
Tickets for the following functions are **nonrefundable**.

(D) Meal Functions (nonrefundable, no exceptions)	Quantity		
Thursday International Lunch (Included in PATT-21 Package) 12-1:30pm	_____ @ \$ 35	\$ _____	
Friday Foundation Breakfast 7-8:45am	_____ @ \$ 25	\$ _____	
Yearbook Luncheon 12-2:00pm	_____ @ \$ 35	\$ _____	
Saturday EPT Breakfast 7-8:45am	_____ @ \$ 25	\$ _____	
Awards Luncheon (Included in CS Conf. Package) 12-1:50pm	_____ @ \$ 35	\$ _____	

(E) Social Events (Limited to 150 participants. Details available online.)			
Thursday Kentucky Derby Museum Special Event 6:30-9:30pm	_____ @ \$ 65	\$ _____	

(F) Specialized Workshops (Open to all registrants/guests. Details available online.)

Wednesday (Preconference Workshops)			
Learning Through Electronic Portfolios 1-4pm	_____ @ \$ 95	\$ _____	
Engineering Concepts 1-4pm	_____ @ \$ 95	\$ _____	
Teaching Sustainable Manufacturing 1-4pm	_____ @ \$ 95	\$ _____	
Teaching STEM Concepts with Agile Robots 1-4pm	_____ @ \$ 95	\$ _____	
Systemic Approaches to Gender Equity 1-4pm	_____ @ \$ 95	\$ _____	
D&T at the British Schools of America 1-4pm	_____ @ \$ 95	\$ _____	
Automation, Control & Robotic Curriculum 1-4pm	_____ @ \$ 95	\$ _____	
Engineering Design Challenges Into HS Classrm 1-4pm	_____ @ \$ 95	\$ _____	

(G) Engineering byDesign™ Laboratories

Thursday			
EbD™ Exploring Technology Lab 1:00-4:50pm	_____ @ \$ 15	\$ _____	
EbD™ Foundations of Technology Lab 1:00-4:50pm	_____ @ \$ 15	\$ _____	
EbD™ ITEA-NASA Elem. Challenges 1:00-4:50pm	_____ @ \$ 15	\$ _____	
Friday			
EbD™ Invention and Innovation Lab 2:00-4:50pm	_____ @ \$ 15	\$ _____	
EbD™ Adv. Design Applications Lab 2:00-4:50pm	_____ @ \$ 15	\$ _____	
EbD™ ITEA-NASA MS Challenges 2:00-4:50pm	_____ @ \$ 15	\$ _____	
Saturday			
EbD™ Invention, Innov. & Inquiry Lab 9:00-11:50am	_____ @ \$ 15	\$ _____	
EbD™ Technological Systems Lab 9:00-11:50am	_____ @ \$ 15	\$ _____	
EbD™ Engineering Design Lab 9:00-11:50am	_____ @ \$ 15	\$ _____	
EbD™ ITEA-NASA HS Challenges 9:00-11:50am	_____ @ \$ 15	\$ _____	

(H) Industry/Educational Tours (Availability is limited. Details available online.)

Thursday			
Buffalo Trace Distillery Tour 1-6pm	_____ @ \$ 40	\$ _____	
Louisville Slugger Museum Tour 2-5pm	_____ @ \$ 30	\$ _____	
Friday			
Kentucky Horse Park & Farms Tour 11:15am-6pm	_____ @ \$ 50	\$ _____	
Geek Squad City Tour 1-4pm	_____ @ \$ 30	\$ _____	

SUBTOTAL CONFERENCE (A-H)

\$ _____

CONTINUE TO NEXT PAGE...



2009 PreRegistration Form, page 2

Page 2 of 2

Three Easy Ways to Register

ONLINE

at www.iteaconnect.org (SECURE SITE)

OR

FAX

completed form with credit card information to: 703-860-0353

OR

MAIL

your completed form with payment to:
ITEA Conference Registration
1914 Association Drive, Suite 201
Reston, VA 20191-1539

Registration Deadline is February 27, 2008



A valid form of payment

MUST accompany this form in order to be processed.

DO NOT submit a form without a credit card #, check, or valid PO.

Refund Policy

Refunds for registration fees (minus a \$50.00 processing fee) will be honored only when requested in writing prior to **February 1, 2009**.

Step 4: Membership (new or renewing members)

Name _____
(Please be sure to also complete Steps 1 and 2.)

☐ New ☐ Renewal – ID# (if known) _____

Individual Memberships

(A subscription to *The Technology Teacher* is included.)

NEW Professional	_____ \$ 70	\$ _____
Renewing Professional - U.S.	_____ \$ 80	\$ _____
Canada/Mexico	_____ \$ 85	\$ _____
Other International	_____ \$ 90	\$ _____
Undergraduate Student (first-time member)	_____ \$ 35	\$ _____
Student (full-time Graduate & renewing Undergraduate)	_____ \$ 40	\$ _____
Bridge (one-time Student to Professional)	_____ \$ 65	\$ _____
Advocate	_____ \$ 40	\$ _____

Group Memberships

(Include subscriptions to *The Technology Teacher* and *Technology and Children*.)

Elementary School	_____ \$ 160	\$ _____
Institution/University	_____ \$ 240	\$ _____
Corporate	_____ \$ 400	\$ _____
Museum	_____ \$ 240	\$ _____

Optional Council Memberships

(ITEA Individual Membership Required)

CTTE – Teacher Educators	_____ \$ 40	\$ _____
CS – Supervisors	_____ \$ 20	\$ _____
TECC – Elementary (includes <i>Technology and Children</i>)	_____ \$ 25	\$ _____

SUBTOTAL MEMBERSHIP \$ _____

TOTAL CONFERENCE (A-H, Step 3) \$ _____

TOTAL MEMBERSHIP (Step 4) \$ _____

TOTAL AMOUNT DUE \$ _____
(Please pay this amount in Step 5)

Step 5: Method of Payment

U.S. funds drawn on U.S. bank only

☐ CHECK # _____ (Please **DO NOT** staple or tape check to form)

☐ PURCHASE ORDER # _____
(Note: Original PO must accompany this form)

☐ CREDIT CARD ☐ Visa ☐ MasterCard ☐ Discover

Credit Card # _____

Exp. Date _____ TOTAL CHARGE AMT. \$ _____

Signature _____



71st ANNUAL CONFERENCE

Conference at a Glance

Wednesday, March 25, 2009

8:30am-12:00pm	ITEA Board of Directors Meeting
11:00am-5:00pm	Registration, Resource Center Open
1:00pm-4:00pm	Preconference Specialized Workshops
1:30pm-2:50pm	ITEA Committee/Task Force Work Session
3:00pm-5:00pm	Council Meetings
5:30pm-6:30pm	CS Presidents Reception
6:00pm-7:30pm	ITEA Welcome Reception
8:00pm-10:00pm	TECA Welcome Session

Thursday, March 26, 2009

7:00am-8:30am	ITEA Roundtable Breakfast
8:00am-5:00pm	Registration, Resource Center Open
9:00am-10:50am	Program Excellence General Session
11:00am-11:50am	Professional Development Learning Sessions
11:30am-12:30pm	Spouse/Partner/Guest Program
11:00am-5:00pm	Exhibits Open
11:30am-1:30pm	Cash-and-Carry Lunch in Exhibit Hall
12:00pm-1:30pm	International Luncheon
1:00pm-4:50pm	Engineering byDesign™ Laboratories
1:00pm-4:50pm	Professional Development Learning Sessions
1:00pm-6:00pm	Buffalo Trace Distillery Tour
2:00pm-5:00pm	Louisville Slugger Museum Tour
4:30pm-5:30pm	Supervisors' Roundtable and Reception
6:30pm-9:30pm	Kentucky Derby Museum Private ITEA Event

Friday, March 27, 2009

7:00am-8:45am	Foundation Spirit of Excellence Breakfast
8:00am-5:00pm	Registration, Resource Center Open
9:00am-10:50am	Teacher Excellence General Session
11:00am-11:50am	Professional Development Learning Sessions
11:00am-1:00pm	TECA Transportation Contest Production
11:00am-4:00pm	Exhibits Open
11:15am-6:00pm	Kentucky Horse Park and Farms Tour
11:30am-1:30pm	Lunch in Exhibit Hall
12:00pm-2:00pm	CTTE/CS Yearbook Luncheon
1:00pm-4:00pm	Geek Squad City Tour
2:00pm-4:50pm	Engineering byDesign™ Laboratories
2:00pm-4:50pm	Professional Development Learning Sessions

Saturday, March 28, 2009

7:00am-8:45am	EPT Breakfast
7:45am-8:45am	Program Excellence Breakfast
8:00am-12:00pm	Registration, Resource Center Open
8:30am-12:00pm	TECA Contest Finals and Awards Program
9:00am-11:00am	CTTE Poster Session and Teaching Technology Showcase
9:00am-11:50am	Engineering byDesign™ Laboratories
9:00am-11:50am	Professional Development Learning Sessions
12:00pm-1:50pm	Awards and Recognition Luncheon
2:00pm-6:00pm	ITEA Board of Directors Meeting

www.iteaconnect.org

DELIVERING THE T & E IN STEM

Detailed Conference Guide at: Please visit: <http://www.iteaconnect.org/Conference/precon.pdf>

NEWS AND
RESOURCES FOR
TEACHERS OF
ENGINEERING &
TECHNOLOGY
EDUCATION

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It is the policy of the Indiana Department of Education not to discriminate on the basis of race, color, religion, sex, national origin, age, or disability, in its programs, activities, or employment policies as required by the Indiana Civil Rights Law (I.C. 22-9-1), Title VI and VII (Civil Rights Act of 1964), the Equal Pay Act of 1973, Title IX (Educational Amendments), Section 504 (Rehabilitation Act of 1973), and the Americans with Disabilities Act (42 USCS §12101, et. seq.).

Inquiries regarding compliance by the Indiana Department of Education with Title IX and other civil rights laws may be directed to the Human Resources Director, Indiana Department of Education, Room 229, State House, Indianapolis, IN 46204-2798, or by telephone to 317-232-6610, or the Director of the Office for Civil Rights, U.S. Department of Education, 111 North Canal Street, Suite 1053, Chicago, IL 60606-7204

P.E.E.R

Professional Education Employee Referral



Official Web Site of the Indiana Department of Education

HELP WANTED!

Positions Posted by Category for Engineering & Technology Education in Indiana.
For the most current postings please visit:

<http://doe.state.in.us/peer/positionsbycategory/welcome.html>



Indiana Department of Education
SUPPORTING STUDENT SUCCESS

Browse Positions by Category

Note: It is possible that some of the following positions have already been filled. These positions are left posted by the Indiana Department of Education for three months, or until we are asked to remove them.

Updated		Updated	
03/02/09	Administration	03/02/09	Miscellaneous/Sports
03/03/09	Arts	01/27/09	Nursing & Health Services
03/03/09	Business	03/03/09	Science
02/25/09	Elementary Education	03/02/09	Special Education
02/25/09	English/Reading/Speech/Journalism	02/25/09	Social Workers/Guidance Counselors/Psychologists
03/03/09	Health/Physical Education	02/20/09	Technology/Media & Library Media
02/23/09	History/Social Studies	--/--	Engineering & Technology Education
03/02/09	Mathematics	03/03/09	Vocational/Family & Consumer Science
		03/03/09	World Languages

